

1 1.5 is the first centered value in the primary direction of movement. Again, with an
2 extension of the particle track, the initial x_1 and z_1 coordinates can be read.

3 It should also be appreciated that an alternative method of determining the
4 anatomical material of the starting univel could also be accomplished by using an integer
5 floor or ceiling value of the univel containing the initial point. With this alternative, it is
6 even within the scope of the present invention that steps 162 and 164 could be interposed
7 such that the anatomical material of the starting univel is determined before setting the
8 initial conditions.

9 As the particle is tracked, it is evident that coordinates corresponding to the
10 secondary and tertiary directions of movement will need to be updated as the primary (Y)
11 coordinate is tracked in integer based increments. Since the secondary and tertiary
12 directions of movement are treated in the same manner, they will be described hereinafter
13 as secondary directions of movement. Thus, at step 168, error terms are calculated for the
14 secondary directions of movement to keep track of when either should be independently
15 incremented. Preferably this adjustment occurs if either exceeds a predetermined
16 threshold.

17 Thereafter, at step 170, the movement of the particle along the particle track is
18 traversed in integer based increments along the primary direction of movement into the
19 "next" univel. In this context, this traversal is also referred to as a "step" since it occurs
20 in integer based increments.

21 Thus, with reference to the table 210 (Figure 7), the traversal of the particle along
22 the particle track steps in the Y direction according to $y_1 = 1.5$, $y_2 = 2.5$, $y_3 = 3.5$ until the